CATALOG DOCUMENTATION
EMAP SURFACE WATERS PROGRAM LEVEL DATABASE
1991-1994 NORTHEAST LAKES DATA
LAKE ZOOPLANKTON COUNT DATA

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1. DATA SET IDENTIFICATION

1.1 Title of Catalog Document
EMAP Surface Waters Lake Database
1991-1994 Northeast Lakes
Lake Zooplankton Count Data Summarized by Lake

1.2 Authors of the Catalog Entry
U.S. EPA NHEERL Western Ecology Division
Corvallis, OR

1.3 Catalog Revision Date
November 1996

1.4 Data Set Name
ZOOCNT

1.5 Task Group
Surface Waters

1.6 Data Set Identification Code
0113

1.7 Version
001

1.8 Requested Acknowledgment
These data were produced as part of the U.S. EPA's Environmental Monitoring and Assessment Program (EMAP). If you publish these data or use them for analyses in publications, EPA requires a standard statement for work it has supported:

"Although the data described in this article have been funded wholly or in part by the U.S. Environmental Protection Agency through its EMAP Surface Waters Program, it has not been subjected to Agency review, and therefore does not necessarily reflect the views of the Agency and no official endorsement of the conclusions should be inferred."

2. INVESTIGATOR INFORMATION

2.1 Principal Investigator

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2.2 Investigation Participant - Sample Collection

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Harvard University
New York State Museum of Natural History
Oregon State University
SUNY Syracuse College of Environmental Sciences and Forestry
Queens University
University of Maine
U.S. Fish and Wildlife Service
U.S. Environmental Protection Agency
Office of Research and Development
Regions 1 and 2

3. DATA SET ABSTRACT

3.1 Abstract of the Data Set

The primary function of the lake zooplankton data are to provide a snapshot of the zooplankton assemblage present in the lake at the time of sampling. The zooplankton community represents an integral component of lake biological integrity and represents a snapshot of a publicly visible reflection of lake quality.

3.2 Keywords for the Data Set

Zooplankton assemblage, Zooplankton community, Zooplankton species identification

4. OBJECTIVES AND INTRODUCTION

4.1 Program Objective

The Environmental Monitoring and Assessment Program (EMAP) was designed to periodically estimate the status and trends of the Nation's ecological resources on a regional basis. EMAP provides a strategy to identify and bound the extent, magnitude and location of environmental degradation and improvement on a regional scale based on a probability-based statistical survey design.

4.2 Data Set Objective

This data set is part of a demonstration project to evaluate approaches to monitoring lakes in EMAP. The data set contains the results of a single mid-lake vertical tow -of the zooplankton assemblage taken during mid-summer.

4.3 Data Set Background Discussion

The zooplankton community within a lake is an integral component of lake biological integrity. This data set contains a list of species and counts of numbers of individuals of each species collected at each lake sampled.

4.4 Summary of Data Set Parameters

Validated Zooplankton count parameters include the calculated number of individuals per liter identified for each species of interest in each sample, based on the processing of at least three 1-10 milliliter subsamples from a 100 milliliter sample volume. Each species is identified by a species code. The full species name associated with each code can be found in the LAKE ZOOPLANKTON NAMES dataset.

5. DATA ACQUISITION AND PROCESSING METHODS

5.1 Data Acquisition

5.1.1 Sampling Objective

To obtain a sample of the zooplankton assemblage within a lake during a two month sampling window from July through mid-September.

5.1.2 Sample Collection Methods Summary

The assemblage was sampled using a bongo net with coarse (202 micron) and fine (48 micron) mesh nets towed vertically from near the bottom of the lake to the surface at the deepest point within the lake.

5.1.3 Sampling Start Date

July 1991

5.1.4 Sampling End Date

September 1994

5.1.5 Platform

Sampling was conducted from small boats.

5.1.6 Sampling Gear

Bongo net with coarse (202 micron) and fine (48 micron) mesh nets.

5.1.7 Manufacturer of Instruments

NA

5.1.8 Key Variables

NA

5.1.9 Sampling Method Calibration

NA

5.1.10 Sample Collection Quality Control

See Baker et al. (1997).

5.1.11 Sample Collection Method Reference

Baker, J.R., G.D. Merritt, and D.W. Sutton (eds.). 1997. Environmental Monitoring and Assessment Program - Surface Waters: Field Operations Manual for Lakes.

Chaloud, D.J. and D.V. Peck. 1994. Environmental Monitoring and Assessment Program - Surface Waters: Integrated Quality Assurance Project Plan for the Surface Waters Resource Group.

5.1.12 Sample Collection Method Deviations
NA

5.2 Data Preparation and Sample Processing

5.2.1 Sample Processing Objective
See Baker et al. (1997) and Chaloud and Peck (1994).

5.2.2 Sample Processing Methods Summary
See Baker et al. (1997) and Chaloud and Peck (1994).

5.2.3 Sample Processing Method Calibration
See Baker et al. (1997) and Chaloud and Peck (1994).

5.2.4 Sample Processing Quality Control
See Baker et al. (1997) and Chaloud and Peck (1994).

5.2.5 Sample Processing Method Reference
See Baker et al. (1997) and Chaloud and Peck (1994).

6. DATA MANIPULATIONS

6.1 Name of New or Modified Values
None.

6.2 Data Manipulation Description
See Chaloud and Peck (1994).

7. DATA DESCRIPTION

7.1 Description of Parameters

Parameter Name	Data Type	Len	Format	Parameter Label
COUNT	Num	8		Number of Individuals
DATE_COL	Num	8	MMDDYY	Date Sample Collected
LAKENAME	Char	30		Lake Name
LAKE_ID	Char	8		Lake Identification Code
LAT_DD	Num	8		Lake Latitude (decimal degrees)
LON_DD	Num	8		Lake Longitude (decimal degrees)
SAMPLED	Char	20		Sample visit result, Yes=success

TAXACODE	Char	8	EMAP code for zooplankton taxa
TYPE	Char	8	EMAP Sample type
VISIT_NO	Num	8	Visit Number
YEAR	Num	8	Year of sample

7.1.1 Precision to Which Values are Reported

7.1.2 Minimum Value in Data Set by Parameter

Name	Min
COUNT	0.001
LAT_DD	39.2262
LON_DD	-78.97917
VISIT_NO	1
YEAR	1991

7.1.3 Maximum Value in Data Set by Parameter

Name	Max
COUNT	4101.3
LAT_DD	47.1998
LON_DD	-67.30111
VISIT_NO	2.3
YEAR	1995

7.2 Data Record Example

7.2.1 Column Names for Example Records

```
COUNT,DATE_COL,LAKENAME,LAKE_ID,LAT_DD,LON_DD,SAMPLED,TAXACODE,TYPE,
VISIT_NO,YEAR
```

7.2.2 Example Data Records

```
0.314,08/03/94,"SHADOW LAKE","VT753L",44.6687,-72.225,"Yes","LEPTDMI",
"",1,1994

0.045,08/03/94,"SHADOW LAKE","VT753L",44.6687,-72.225,"Yes","LEPTKIN",
"",1,1994

0.292,08/03/94,"SHADOW LAKE","VT753L",44.6687,-72.225,"Yes","MESOEDA",
"",1,1994
```

8. GEOGRAPHIC AND SPATIAL INFORMATION

8.1 Minimum Longitude

-78 Degrees 58 Minutes 45.01 Seconds West (78.97917 Decimal Degrees)

8.2 Maximum Longitude

-67 Degrees 18 Minutes 4.00 Seconds West (67.30111 Decimal Degrees)

8.3 Minimum Latitude

39 Degrees 13 Minutes 34.32 Seconds North (39.2262 Decimal Degrees)

8.4 Maximum Latitude
47 Degrees 11 Minutes 59.28 Seconds North (47.1998 Decimal Degrees)

8.5 Name of Area or Region
Northeast: EPA Regions I and II which includes Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Vermont, Rhode Island

9. QUALITY CONTROL / QUALITY ASSURANCE

9.1 Data Quality Objectives
See Chaloud and Peck (1994)

9.2 Quality Assurance Procedures
See Chaloud and Peck (1994)

9.3 Unassessed Errors
NA

10. DATA ACCESS

10.1 Data Access Procedures

10.2 Data Access Restrictions

10.3 Data Access Contact Persons

10.4 Data Set Format

10.5 Information Concerning Anonymous FTP

10.6 Information Concerning Gopher and WWW

10.7 EMAP CD-ROM Containing the Data

11. REFERENCES

Baker, J.R., G.D. Merritt, and D.W. Sutton (eds.). 1997. Environmental Monitoring and Assessment Program - Surface Waters: Field Operations Manual for Lakes. EPA/620/R-97/001. U.S. Environmental Protection Agency. Office of Research and Development. Washington, D.C.

Chaloud, D.J. and D.V. Peck. 1994. Environmental Monitoring and Assessment Program - Surface Waters: Integrated Quality Assurance Project Plan for the Surface Waters Resource Group. U.S. Environmental Protection Agency. Office of Research and Development.

12. TABLE OF ACRONYMS

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